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DEPARTMENT OF ECOLOGY - CENTRAL REGIONAL OFFICE

Voluntary Cleanup Plan – Closure Report

Loomis Chevron Site
18 Palmer Ave, Loomis
Okanogan County, Washington

Prepared by:

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7/23/2009

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Background:

In 1993 the Loomis Chevron station, 18 Palmer Avenue, Loomis WA contracted with Blue Ridge Associates Inc. to oversee the removal of 3 Underground Storage Tanks (UST's) and assess the site for contamination. The Loomis Chevron has been in use as a fueling station dispensing gas and diesel since at least 1946. The tanks on the site involved one 750 gallon tank that held diesel, a 1000 gallon tank that contained leaded gasoline and a 6000 gallon tank that held unleaded gasoline. All three of the tanks were removed in 1993, with Don Beanblossom of Oroville doing the excavation work, and replaced with new tanks meeting the state of the art design at the time. The tanks were all located on the northern portion of the property between the store building and Palmer Ave.

Current Conditions:

The property has continued to be operated as a gas station/ convenience store since the tanks were replaced. When the tanks were replaced in 1993 a reinforced concrete slab, estimated at 6 inches thick, was poured over the entire fueling area from the store building to the property line. This concrete is still in good condition and shows no evidence of cracking, etc. that would allow water to go through it. There is some scaling on the surface of a portion of the slab but this presents no opportunity for water to

penetrate the slab and thus migrate downward to where the contaminated soil was located.

Site Photos:

The following series of photographs were taken on April 28, 2009 and show the site as it currently exists.

Figure 1 Looking west showing the concrete driveway extending to the edge of the right of way and asphalt from there to the center of Palmer Ave. There is a significant grade break at the highway caution sign with the terrain dropping 100 feet down to the valley floor. The interface between the asphalt and the concrete makes a very shallow drainage swale draining to the east on Palmer Ave. During winter months snow is stockpiled to the right of the propane tank on the shoulder of the road with subsequent melt flowing to the east. Palmer Ave. has a 2-3 percent grade at this point.

Figure 2 Looking south from the north east corner of the subject property. There is a concrete apron extending out from the building about 10 feet and then dropping a couple of feet to the street grade. During the winter months snow is plowed to the south and stockpiled in the grassy area just showing behind the pickup. Any subsequent runoff from snowmelt runs southerly along the street.

Figure 3 Looking east from the northwest corner of the property showing Palmer Ave on the left. The fuel tank fill pipes are shown in the concrete slab. This entire area, from the center of the street to the face of the building, is kept free of snow during the winter months to allow for access to the store and fuel pumps. The former fuel tanks were located under the concrete slab.

Figure 4 This photo is looking south and shows the west side of the property with a hard-packed, gravel surface. Snow is pushed to the back of the lot during the winter months and stockpiled to the right of the garage with access maintained on all sides of the store at all times to allow delivery vehicles to park behind the building while unloading. Drainage runs from the stockpiled area to the south and to the east away from the area where the fuel tanks were located.

Water Supply/Hydrology:

The community of Loomis domestic water needs are served by the Loomis Water Association by means of a well (ABR531) located in the NE NE SW ¼ of Section 1, T 38 N, R25E, WM. The well log is attached as an exhibit to this report. The current well was drilled in 1990 to a depth of 78 feet in sands and gravels. The static water level was 23 feet below the surface and the well was pump tested at 200 gallons per minute with a 27 foot drawdown after 4 hours and an instantaneous recovery. This well is located approximately ¼ mile away from the subject property

The annual rainfall in this area is approximately 12 inches with half or more occurring as snowfall.

The community of Loomis straddles the watershed divide between Sinlahekin Creek, which flows north into the Similkameen, and Whitestone Creek, which flows east to the Okanogan River. The Loomis Chevron station lies just east of the divide so surface water drains into Whitestone Creek away from the community well site. The direction of groundwater flow is unknown.

Soil Conditions:

The soil that was removed during the tank removal process was described as primarily fine sand with some weathered metamorphic cobbles. During the removal process Mr. Beanblossom dug down with his backhoe as deep as was practical with his extend-a-hoe (12 feet or so) and then he ramped down into the excavation from the west side so that he

could drive in with his backhoe and scoop material out – going down to a total depth of 14-16 feet. The excavation extended out to the edge of the county highway on the north side of the property and to the edge of the side street on the east side. The community water main was exposed on the north side of the property and there was concern at the time that the asphalt might break way and damage the water line when it fell into the hole. When he was done excavating the material there was no indication from anyone that he had not removed all of the "contaminated" soil. When the new tanks were installed all clean back fill material was brought into the site and used in the restoration efforts.

The excavated soil was stockpiled on site during the excavation and then hauled to the Beanblossom property in Oroville for treatment and disposal. The disposal site was first covered with 3 layers of 6 mil plastic sheeting followed by 12 inches of clean sand. The contaminated soil was then placed over the sand layer. Mr. Beanblossom was contracted to rotovate the contaminated soil on a monthly basis ($35 per month) with the DOE saying they would take periodic samples to test for the continued presence of contamination. He mixed the soil up for several months but never received any payment so he called the DOE and was told there was no more money for the cleanup so he would not be paid. He stopped rotovating the material and a very profuse weed crop grew on the soil over the next couple of years. Eventually he began to incorporate truckloads of the material into various construction projects. Mr. Beanblossom indicated that there are still vestiges of the plastic sheeting out in his field but the soil that was removed from the Loomis site was all gone at this time (Personal Communication – July 2009).

Prior Recommendations:

It was recommended in the Site Characterization Report that a series of boreholes be drilled around the perimeter of the site to determine the extent of vertical and lateral contamination since not all of the contaminated soil was removed during the excavation process. This recommendation was never carried out for unknown reasons.

Conclusions:

The site had contaminated soil removed during the replacement of the old fuel storage tanks, with the soil being treated in accordance with best management practices and subsequently disposed of. It is concluded that this soil no longer poses any threat to the environment.

The excavator, Don Beanblossom, stated that to his knowledge they removed all of the contaminated soil. He was never directed to remove additional soil or heard anyone say there was additional material that should be removed. (Personal Communication, July 2009)

Since 1993, when the tanks were replaced, the site has continued to be used as a fueling station and convenience store. The area where the old tanks were located, and where the current tanks are located, is capped with a concrete slab that prevents any water from draining directly into the ground where the contaminated soils were removed from during the replacement project. The area immediately to the north of the site is a county road

that is paved with asphalt. On either side of the building the ground surface is either concrete or compacted gravel, both of which are considered as impervious surfaces.

Snow removal is accomplished by plowing all snow away from the fuel tank locations and storing it in locations that will drain away from the site and not create pooling opportunities that would result in infiltration.

Recommendations:

It is recommended that the site be left in an undisturbed manner with the impervious cap being maintained in place.

A covenant should be placed on the property to assure that the current and future owners are aware of the prior situation.

EXHIBIT A

LOCATION MAP

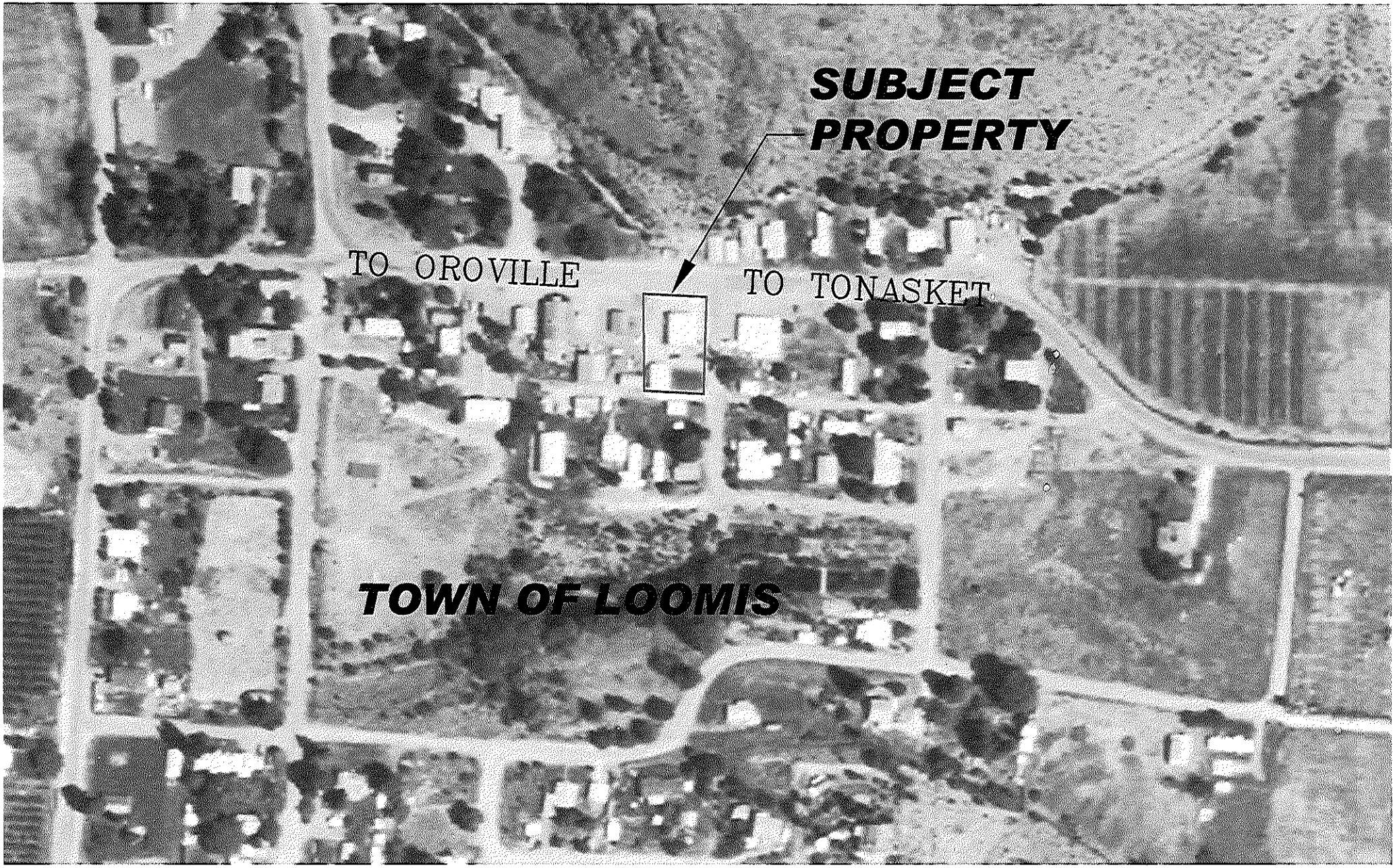

SUBJECT
PROPERTY
TO OROVILLE
TO TONASKET
TOWN OF LOOMIS

EXHIBIT B

WELL LOG

File Original and First Copy with Department of Ecology
Second Copy — Owner's Copy
Third Copy — Driller's Copy 56977

WATER WELL REPORT
STATE OF WASHINGTON

Start Card No. W086806
UNIQUE WELL I.D.# ABR531
Water Right Permit No.

(1) OWNER: Name Loomis Water Association Address 230 Broadway Ave Loomis, Wa. 98827

(2) LOCATION OF WELL: County Okanogan NE 1/4 SW 1/4 Sec 1 T. 38 N, R. 25E W.M.

(2a) STREET ADDRESS OF WELL (or nearest address)

(3) PROPOSED USE: ☐ Domestic ☐ Industrial ☐ Municipal ☒ ☐ Irrigation ☐ Test Well ☐ Other ☐ ☐ DeWater

(4) TYPE OF WORK: Owner's number of well (if more than one) #1
Abandoned ☐ New well ☐ Method Dug ☐ Bored ☐ Deepened ☐ Cable ☐ Driven ☐ Reconditioned ☒ Rotary ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 8 inches. Drilled ____ feet. Depth of completed well 80 ft.

(6) CONSTRUCTION DETAILS:
Casing installed: 8" Diam from +1 ft. to 70 ft.
Welded ☐ Liner installed ☐ Threaded ☐ ____" Diam. from ____ ft to ____ ft.
____" Diam from ____ ft to ____ ft.

Perforations: Yes ☐ No ☒
Type of perforator used
SIZE of perforations ____ in. by ____ in
____ perforations from ____ ft to ____ ft.
____ perforations from ____ ft to ____ ft.
____ perforations from ____ ft. to ____ ft.

Screens: Yes ☒ No ☐ Manufacturer's Name Johnson
Type Stainless Wire wound Model No.
Diam 8" Slot size .020 from 70 ft. to 75 ft.
Diam 8" Slot size .020 from 75 ft. to 80 ft.

Gravel packed: Yes ☐ No ☒ Size of gravel
Gravel placed from ____ ft to ____ ft.

Surface seal: Yes ☒ No ☐ To what depth? ____ ft.
Material used in seal
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? ____ Depth of strata
Method of sealing strata off

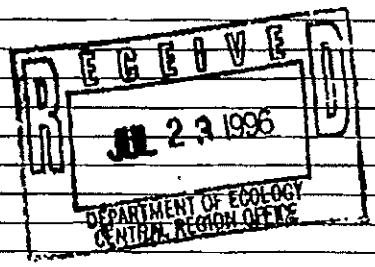
(7) PUMP: Manufacturer's Name G-Rundfos
Type 1355 H.P. 15

(8) WATER LEVELS: Land-surface elevation above mean sea level
Static level 22ft. ft below top of well Date 7-9-96
Artesian pressure ____ lbs per square inch Date
Artesian water is controlled by (Cap, valve, etc)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☒ No ☐ If yes, by whom? Driller
Yield 200 gal /min with 27 ft drawdown after 1 hr
" " " "
" " " "
Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)
Time | Water Level | Time | Water Level | Time | Water Level
Recovers to static instantly
Date of test 7-9-96
Bailer test ____ gal./min with ____ ft drawdown after ____ hrs.
Artest ____ gal /min with stem set at ____ ft for ____ hrs.
Artesian flow ____ g p m Date
Temperature of water ____ Was a chemical analysis made? Yes ☒ No ☐

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION
Formation. Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information

MATERIAL	FROM	TO
Existing well Put 10' of screen and developed		



Work Started 7-6-96 Completed 7-9-96, 19

WELL CONSTRUCTOR CERTIFICATION:
I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief

NAME Windle Enterprises (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)
Address P.O. Box 209, Brewster, Wa. 98812
(Signed) Alvie L. Windle (WELL DRILLER) License No. 1421
Contractor's Registration No. WINDLE 121PR Date 7-15- 96

(USE ADDITIONAL SHEETS IF NECESSARY)

ECL 050-1-20 (2/93)